

Generation-X Mission Technology Drivers

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Gen-X is envisioned to be an observatory with a gigantic X-ray collection area and exquisite angular resolution and energy spectral resolution. As such it presents a number of technological challenges: extremely lightweight X-ray optics, large area and fast readout imaging detectors with excellent energy resolution, and efficient gratings. These challenges call for development of both the basic technologies and large-scale precision manufacture techniques. In this paper we present and discuss these challenges and outline a plan that will address these challenges in the next two decades.